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10/042,478	01/09/2002	Jose Antonio Garcia Tello	TER99P3467	6081

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EXAMINER

PHAM, THOMAS K

ART UNIT

PAPER NUMBER

2121

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/042,478

Applicant(s)

TELLO ET AL.

Examiner

Thomas K Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

***Notice to Applicant(s)***

1. Claims 1-11 of U.S. Application 10/042478 filed on 09 January 2002 are presented for examination.

**DETAILED ACTION**

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon et al. U.S. Patent 5,361,198 (hereinafter Harmon) in view of Eryurek et al. U.S. Patent No. 6,119,047 (hereinafter Eryurek) and further in view of Lang U.S. Patent 5,745,539.
5. As for claim 1, Harmon discloses a module for controlling a drive, the module comprising: a terminal for connecting to a control system for operating tasks and a control system for safety tasks, commands from the control system for safety tasks having priority over commands from the control system for operating tasks (col. 11 line 64 to col. 12 line 3, "It can be ... workstation 104"). Harmon does not specifically disclose a microprocessor for processing commands from multiple controlling and diagnostic devices, said microprocessor coupled to said

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terminal; a logic circuit for prioritizing the commands from the control system for safety tasks, said logic circuit connected to said microprocessor; at least one output coupled to at least one of said microprocessor and said logic circuit; an interface for connecting to one of the control system for operating tasks and a diagnostic device, said interface connected to said microprocessor. However, Eryurek teaches a microprocessor for processing commands from multiple controlling and diagnostic devices, said microprocessor coupled to said terminal (col. 3 lines 33-41, "Device 40 includes ... field device 40"); an interface for connecting to one of the control system for operating tasks and a diagnostic device (col. 4 lines 15-21, "The process ... I/O channel."), said interface connected to said microprocessor (fig. 2, element 52); and a memory for storing the commands and replies, said memory connected to said microprocessor (col. 4 lines 36-41, "Microprocessor 46 acts ... present invention"). Furthermore, Lang teaches a logic circuit for prioritizing the commands from the control system for safety tasks (col. 3 lines 19-22, "Prioritization ... component 3."), said logic circuit connected to said microprocessor (col. 3 lines 27-30, "Thus, where ... are utilized"); at least one output coupled to at least one of said microprocessor and said logic circuit (fig. 1, element 7a-n). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the microprocessor and diagnostic device of Eryurek with the controlling module of Harmon because it would provide for a centralized computing power in order to analyze the process signal and determining whether the operation status of a plant is normal or abnormal according to the calculated statistical parameters. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the logic circuit of Lang with the controlling

module of Harmon because it would provide for supplying the logic control signals in order to prioritize commands to activate the safety grade subsystem over the normal operating condition.

6. As for claim 2, Eryurek discloses a clock circuit connecting to the microprocessor (col. 3 lines 33-35, "Device 40 ... to microprocessor 46").

7. As for claim 3, Harmon does not specifically disclose the module according to claim 1, wherein said logic circuit has a fixed-programmed priority function for the commands from the control system for safety tasks. However, Lang teaches the logic circuit has a fixed-programmed priority function for the commands from the control system for safety tasks (col. 6 lines 11-30, "FIG. 5 ... isolate containment"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the logic circuit of Lang with the controlling module of Harmon because it would provide for supplying the logic control signals from a fixed-programmed in order to prioritize commands to activate the safety grade subsystem over the normal operating condition

8. As for claim 4, Harmon discloses the module according to claim 1, including at least one electronic protection device protecting against a short circuit of and connected to said output (col. 11 lines 44-52, "To the extent ... enable/actuation logic").

9. As for claim 5, Harmon does not specifically disclose the module according to claim 1, including coding plugs disposed on a side of the module which is accessible in an installed state. However, Harmon discloses a desk portion of the panel with all the interfaces to different control modules (col. 15 lines 42-55, "On the desk ... FIG. 6 and 7."). It would be obvious to one of ordinary skill in the art to include coding plugs on the side of the desk portion of the panel for interfacing different device into the panel and provide better accessibility.

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10. As for claim 6, Harmon discloses the module according to claim 1, wherein the drive is used in an installation that can endanger public safety (col. 9 lines 38-40, "It should be ... or subsystems.").

11. As for claim 7, Harmon discloses a control device for an installation, comprising: two manual control stations being separate from one another (col. 11 lines 64-67, "It can be ... defense-in-depth."; a control system for operating tasks (col. 11 line 68 to col. 12 line 1, "... separate control 114 for normal operation ..."); a control system for safety tasks (col. 12 line 1 "... and for safety and protection 118..."); and a module connected to each of said two manual control stations, said module including: a terminal connected to said control system for operating tasks and said control system for safety tasks (col. 11 line 64 to col. 12 line 3, "It can be ... workstation 104"). Harmon does not specifically disclose a microprocessor for processing commands from multiple controlling and diagnostic devices, said microprocessor coupled to said terminal; the commands from said control system for safety tasks having priority over commands from said control system for operating tasks; a logic circuit for prioritizing the commands from said control system for safety tasks, said logic circuit connected to said microprocessor; at least one output coupled to at least one of said microprocessor and said logic circuit; an interface connected to one of said control system for operating tasks and a diagnostic device, said interface connected to said microprocessor; and a memory for storing the commands and replies, said memory connected to said microprocessor. However, Eryurek teaches a microprocessor for processing commands from multiple controlling and diagnostic devices, said microprocessor coupled to said terminal (col. 3 lines 33-41, "Device 40 includes ... field device 40"); an interface for connecting to one of the control system for operating tasks and a diagnostic device

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(col. 4 lines 15-21, "The process ... I/O channel."), said interface connected to said microprocessor (fig. 2, element 52); and a memory for storing the commands and replies, said memory connected to said microprocessor (col. 4 lines 36-41, "Microprocessor 46 acts ... present invention"). Furthermore, Lang teaches the commands for safety tasks having higher priority over commands for normal operation (col. 6 lines 11-13, "FIG. 5 ... over another"); a logic circuit for prioritizing the commands from the control system for safety tasks (col. 3 lines 19-22, "Prioritization ... component 3."), said logic circuit connected to said microprocessor (col. 3 lines 27-30, "Thus, where ... are utilized"); at least one output coupled to at least one of said microprocessor and said logic circuit (fig. 1, element 7a-n). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the microprocessor and diagnostic device of Eryurek with the controlling module of Harmon because it would provide for a centralized computing power in order to analyze the process signal and determining whether the operation status of a plant is normal or abnormal according to the calculated statistical parameters. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the logic circuit of Lang with the controlling module of Harmon because it would provide for supplying the logic control signals in order to prioritize commands to activate the safety grade subsystem over the normal operating condition.

12. As for claim 8, Harmon discloses a control method, which comprises: providing a control device having two manual control stations being separate from one another, and a module connected to each of the two manual control stations, the module containing: a terminal for connecting to a control system for operating tasks and a control system for safety tasks (col. 11 line 64 to col. 12 line 3, "It can be ... workstation 104"); indicating a state of the drive in both of

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the two manual control stations (col. 12 lines 32-46, "Thus, the control ... monitoring system."). Harmon does not specifically disclose a microprocessor for processing commands from multiple controlling and diagnostic devices, said microprocessor coupled to said terminal; the commands from said control system for safety tasks having priority over commands from said control system for operating tasks; a logic circuit for prioritizing the commands from said control system for safety tasks, said logic circuit connected to said microprocessor; at least one output coupled to at least one of said microprocessor and said logic circuit; an interface connected to one of said control system for operating tasks and a diagnostic device, said interface connected to said microprocessor; and a memory for storing the commands and replies, said memory connected to said microprocessor. However, Eryurek teaches a microprocessor for processing commands from multiple controlling and diagnostic devices, said microprocessor coupled to said terminal (col. 3 lines 33-41, "Device 40 includes ... field device 40"); an interface for connecting to one of the control system for operating tasks and a diagnostic device (col. 4 lines 15-21, "The process ... I/O channel."), said interface connected to said microprocessor (fig. 2, element 52); and a memory for storing the commands and replies, said memory connected to said microprocessor (col. 4 lines 36-41, "Microprocessor 46 acts ... present invention"). Furthermore, Lang teaches commands for safety tasks having higher priority over commands for normal operation (col. 6 lines 11-13, "FIG. 5 ... over another"); a logic circuit for prioritizing the commands from the control system for safety tasks (col. 3 lines 19-22, "Prioritization ... component 3."), said logic circuit connected to said microprocessor (col. 3 lines 27-30, "Thus, where ... are utilized"); at least one output coupled to at least one of said microprocessor and said logic circuit (fig. 1, element 7a-n). It would have been obvious to one of ordinary skill in the art at the time the



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invention was made to combine the microprocessor and diagnostic device of Eryurek with the controlling module of Harmon because it would provide for a centralized computing power in order to analyze the process signal and determining whether the operation status of a plant is normal or abnormal according to the calculated statistical parameters. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the logic circuit of Lang with the controlling module of Harmon because it would provide for supplying the logic control signals in order to prioritize commands to activate the safety grade subsystem over the normal operating condition.

13. As for claim 9, Harmon do not specifically disclose the method according to claim 8, which comprises using the diagnostic device for reading out software required for operating the module. However, Eryurek teaches a diagnostic signal that read out software requirement for operating the system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the diagnostic signal of Eryurek with the controlling module of Harmon because it would provide for reading out software requirement needed to operate the system in order to determine of a normal or abnormal condition.

14. As for claim 10, Eryruek discloses connecting the diagnostic device to a bus connected to the module (fig. 2, element 52).

15. As for claim 11, Eryruek discloses connecting the diagnostic device to the interface of the module (fig. 2, element 52).

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thomas Pham; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874. The examiner can normally be reached on Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Anil Khatri*, can be reached on (703) 305-0282 or via e-mail addressed to [*anil.khatri@uspto.gov*]. Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the 4th floor)**, or faxed. The following **fax numbers** apply:

<b>Official</b>	<b>(703) 746 - 7239</b>
<b>Non Official/ Draft</b>	<b>(703) 746 - 7240</b>
<b>After Final</b>	<b>(703) 746 - 7238</b>

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [*thomas.pham@uspto.gov*].

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

**Thomas K. Pham**  
*Patent Examiner*

tp  
August 5, 2003

  
**ANIL KHATRI**  
**PRIMARY EXAMINER**